

chain nodes :

10 11 12 19 20 21 28 29 30 31 32 33

ring nodes :

1 2 3 4 5 6 7 8 9 13 14 15 16 17 18 22 23 24 25 26 27

chain bonds :

7-10 8-12 10-13 10-28 11-19 11-29 19-20 19-21 21-23 28-29 30-31 30-32 32-33

ring bonds :

1-2 1-6 2-3 3-4 4-5 4-7 5-6 5-9 7-8 8-9 13-14 13-18 14-15 15-16 16-17  
17-18 22-23 22-27 23-24 24-25 25-26 26-27

exact/norm bonds :

4-7 5-9 7-8 7-10 8-9 8-12 10-28 11-19 19-20 21-23 22-23 22-27 23-24 24-25  
25-26 26-27 30-31 30-32 32-33

exact bonds :

10-13 11-29 19-21 28-29

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6 13-14 13-18 14-15 15-16 16-17 17-18

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:CLASS  
11:CLASS 12:CLASS 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:CLASS  
20:CLASS 21:CLASS 22:Atom 23:Atom 24:Atom 25:Atom 26:Atom 27:Atom 28:CLASS  
29:Atom 30:CLASS 31:CLASS 32:CLASS 33:CLASS 34:CLASS

Generic attributes :

29:

Saturation : Unsaturated  
Number of Carbon Atoms : less than 7  
Type of Ring System : Monocyclic

10/489087

s l1

SAMPLE SEARCH INITIATED 17:48:53 FILE 'REGISTRY'  
SAMPLE SCREEN SEARCH COMPLETED - 38 TO ITERATE

100.0% PROCESSED 38 ITERATIONS 0 ANSWERS  
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
BATCH \*\*COMPLETE\*\*  
PROJECTED ITERATIONS: 391 TO 1129  
PROJECTED ANSWERS: 0 TO 0

L2 0 SEA SSS SAM L1

=> s l1 sss full

FULL SEARCH INITIATED 17:49:09 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED - 919 TO ITERATE

100.0% PROCESSED 919 ITERATIONS 10 ANSWERS  
SEARCH TIME: 00.00.01

L3 10 SEA SSS FUL L1

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	161.76	161.97

FILE 'CAPLUS' ENTERED AT 17:49:14 ON 14 MAY 2005  
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PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
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FILE COVERS 1907 - 14 May 2005 VOL 142 ISS 21  
FILE LAST UPDATED: 13 May 2005 (20050513/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l3

L4 7 L3

=> d l4 1-7 bib abs hitstr

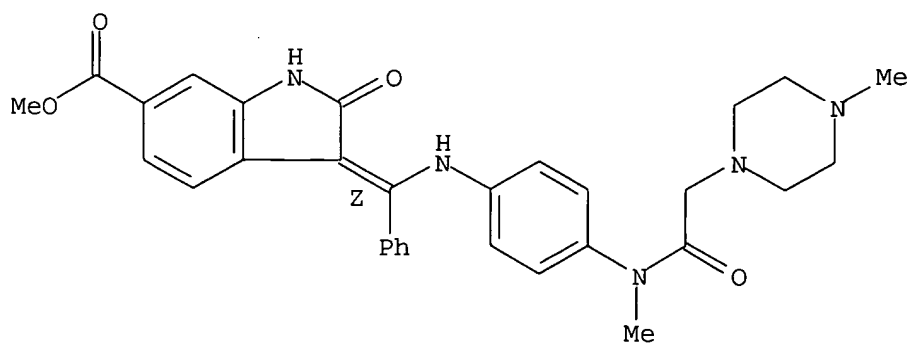
L4 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2004:965067 CAPLUS  
DN 141:406039  
TI Combinations for the treatment of diseases involving cell proliferation,

migration or apoptosis of myeloma cells, or angiogenesis  
 IN Hilberg, Frank; Solca, Flavio; Stefanic, Martin Friedrich; Baum, Anke;  
 Munzert, Gerd; Van Meel, Jacobus C. A.  
 PA Boehringer Ingelheim International G.m.b.H., Germany; Boehringer Ingelheim  
 Pharma G.m.b.H. & Co. K.-G.  
 SO PCT Int. Appl., 101 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004096224	A2	20041111	WO 2004-EP4363	20040424
	WO 2004096224	A3	20041216		
	W:				
	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,				
	CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE,				
	GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK,				
	LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO,				
	NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ,				
	TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW:				
	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,				
	AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,				
	EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,				
	SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,				
	SN, TD, TG				
	EP 1473043	A1	20041103	EP 2003-9587	20030429
	R:				
	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				
	IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
PRAI	EP 2003-9587	A	20030429		
	EP 2004-508	A	20040113		
	EP 2004-1171	A	20040121		
AB	The present invention relates to a pharmaceutical combination for the treatment of diseases which involves cell proliferation, migration or apoptosis of myeloma cells, or angiogenesis. The invention also relates to a method for the treatment of said diseases, comprising co-administration of effective amts. of specific active compds. and/or co-treatment with radiation therapy, in a ratio which provides an additive and synergistic effect, and to the combined use of these specific compds. and/or radiotherapy for the manufacture of corresponding pharmaceutical combination preps. The pharmaceutical combination can include selected protein tyrosine kinase receptor antagonists and further chemotherapeutic or naturally occurring semisynthetic or synthetic agents.				
IT	<b>656247-17-5 790241-30-4 790241-31-5</b> RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (drug combinations for diseases involving cell proliferation and migration or apoptosis or angiogenesis including protein tyrosine kinase receptor antagonists and radiotherapy)				
RN	656247-17-5 CAPLUS				
CN	1H-Indole-6-carboxylic acid, 2,3-dihydro-3-[[[4-[methyl[(4-methyl-1- piperazinyl)acetyl]amino]phenyl]amino]phenylmethylene]-2-oxo-, methyl ester, (3Z)- (9CI) (CA INDEX NAME)				

Double bond geometry as shown.

10/489087



RN 790241-30-4 CAPLUS

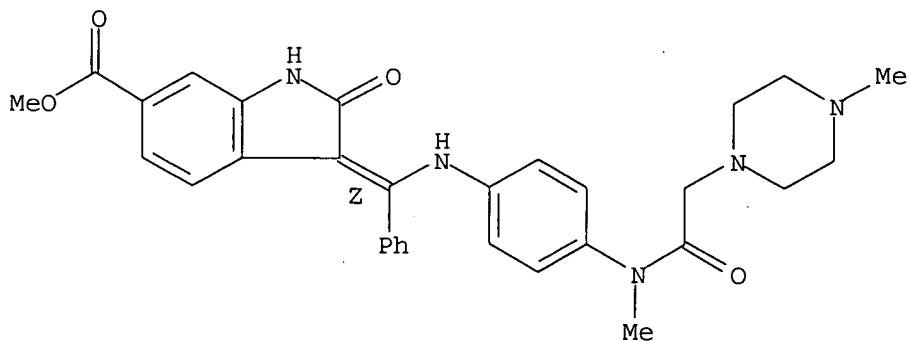
CN 1H-Indole-6-carboxylic acid, 2,3-dihydro-3-[[[4-[methyl[(4-methyl-1-piperazinyl)acetyl]amino]phenyl]amino]phenylmethylene]-2-oxo-, methyl ester, (3Z)-, monomethanesulfonate (9CI) (CA INDEX NAME)

CM 1

CRN 656247-17-5

CMF C31 H33 N5 O4

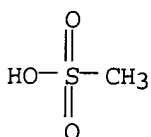
Double bond geometry as shown.



CM 2

CRN 75-75-2

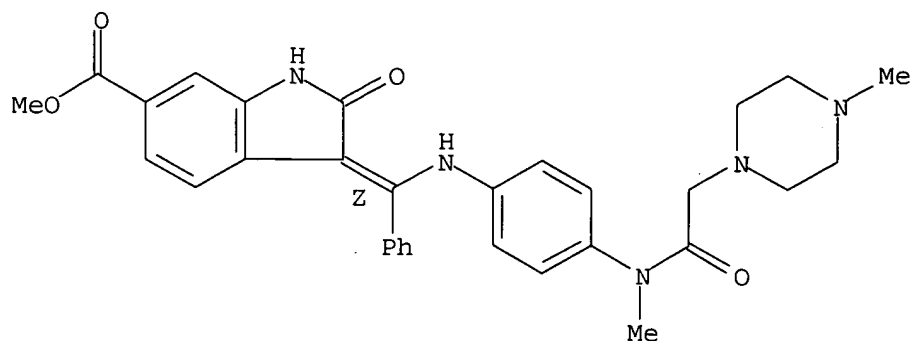
CMF C H4 O3 S



RN 790241-31-5 CAPLUS

CN 1H-Indole-6-carboxylic acid, 2,3-dihydro-3-[[[4-[methyl[(4-methyl-1-piperazinyl)acetyl]amino]phenyl]amino]phenylmethylene]-2-oxo-, methyl ester, dihydrochloride, (3Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



● 2 HCl

L4 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN  
 AN 2004:930932 CAPLUS  
 DN 141:400905  
 TI Combination of steroid and tyrosine kinase receptor antagonist for the  
 treatment of diseases involving cell proliferation, migration or apoptosis  
 of myeloma cells, or angiogenesis  
 IN Stefanic, Martin; Munzert, Gerd; Hilberg, Frank  
 PA Boehringer Ingelheim Pharma GmbH & Co. KG, Germany  
 SO Eur. Pat. Appl., 14 pp.  
 CODEN: EPXXDW

DT Patent  
 LA English

FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1473043	A1	20041103	EP 2003-9587	20030429
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 2005043233	A1	20050224	US 2004-830147	20040422
WO 2004096224	A2	20041111	WO 2004-EP4363	20040424
WO 2004096224	A3	20041216		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
PRAI EP 2003-9587	A	20030429		
EP 2004-508	A	20040113		
EP 2004-1171	A	20040121		
US 2004-542036P	P	20040205		

AB The present invention relates to a pharmaceutical combination for the treatment of diseases which involves cell proliferation, migration or apoptosis of myeloma cells, or angiogenesis. The combination comprises the co-administration of a protein tyrosine kinase receptor antagonist and of a steroid.

IT 656247-17-5

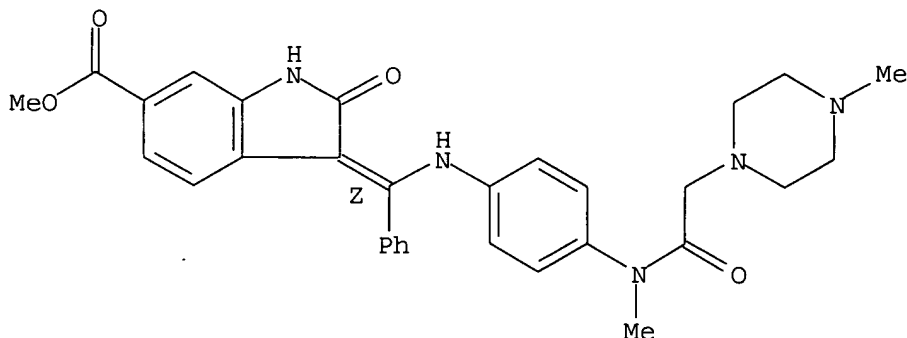
10/489087

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(combination of steroid and tyrosine kinase receptor antagonist for  
treatment of diseases involving myeloma proliferation, migration or  
apoptosis, or angiogenesis)

RN 656247-17-5 CAPLUS

CN 1H-Indole-6-carboxylic acid, 2,3-dihydro-3-[[[4-[methyl[(4-methyl-1-  
piperazinyl)acetyl]amino]phenyl]amino]phenylmethylene]-2-oxo-, methyl  
ester, (3Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L4 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2004:267298 CAPLUS

DN 140:303523

TI Preparation of heterocyclically substituted indolinones as inhibitors of  
various receptor tyrosine kinases

IN Kley, Joerg; Heckel, Armin; Hilberg, Frank; Roth, Gerald Juergen;  
Lehmann-Lintz, Thorsten; Lotz, Ralf R. H.; Tontsch-Grunt, Ulrike; Van  
Meel, Jacobus C. A.

PA Boehringer Ingelheim Pharma G.m.b.H. & Co. K.-G., Germany

SO PCT Int. Appl., 226 pp.

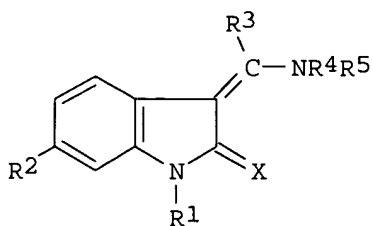
CODEN: PIXXD2

DT Patent

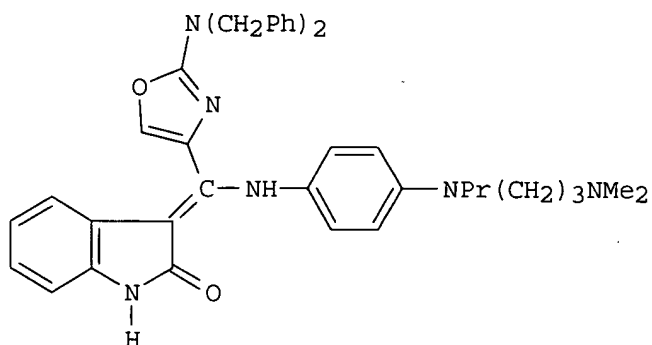
LA German

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004026829	A2	20040401	WO 2003-EP9978	20030909
	WO 2004026829	A3	20041007		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	DE 10242350	A1	20040318	DE 2002-10242350	20020912
	DE 10252969	A1	20040527	DE 2002-10252969	20021114
PRAI	DE 2002-10242350	A	20020912		
	DE 2002-10252969	A	20021114		
OS	MARPAT 140:303523				
GI					



I



II

AB Title compds. I [X = O, S; R1 = H, prodrug residue, such as alkoxy carbonyl, acyl; R2 = H, F, Cl, Br, CN, NO2, (un)substituted CO2H, CONH2; R3 = (un)substituted 5-6-membered heteroaryl; R4 = (un)substituted cycloalkyl, aryl; R5 = H, alkyl] were prepared. I exhibit an inhibiting action on various receptor tyrosine kinases and cyclin-CDK complexes and on the proliferation of endothelial cells and various tumor cells. Thus, 1-acetyl-2-indolinone was treated with 2-dibenzylaminooxazole-4-carboxylic acid to give 1-acetyl-3-{1-hydroxy-1-[2-dibenzylaminooxazol-4-yl]methylene}-2-indolinone which was treated with Me2N(CH2)3NPrC6H4NH2-4 to give the title compound II which had IC50 for inhibition of cell proliferation of 1 nM.

IT **674769-84-7P 674770-51-5P**

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

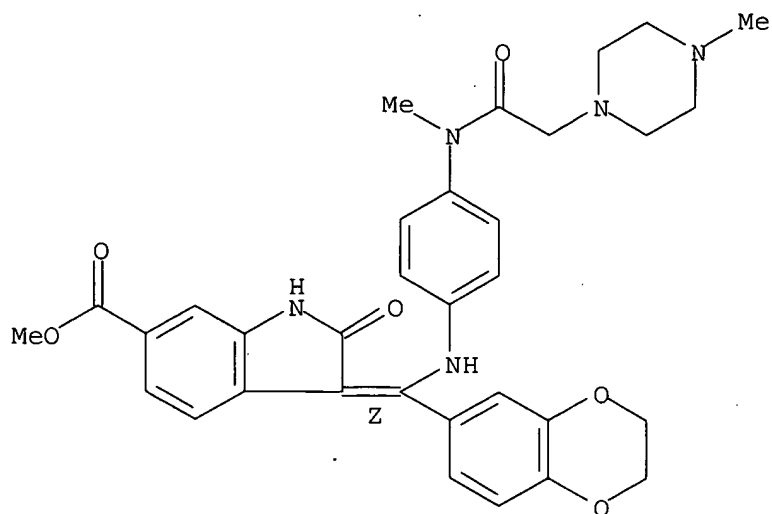
(preparation of heterocyclically substituted indolinones as inhibitors of various receptor tyrosine kinases)

RN 674769-84-7 CAPLUS

CN 1H-Indole-6-carboxylic acid, 3-[(2,3-dihydro-1,4-benzodioxin-6-yl)[[4-methyl[(4-methyl-1-piperazinyl)acetyl]amino]phenyl]amino]methylene]-2,3-dihydro-2-oxo-, methyl ester, (3Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

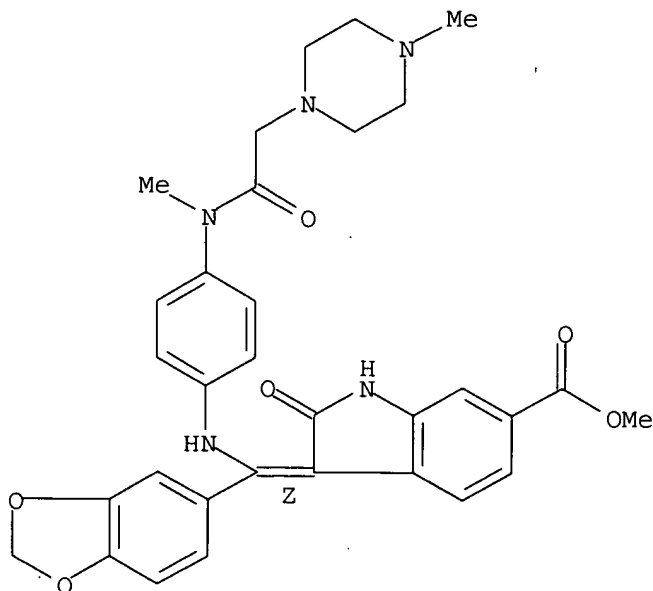
10/489087



RN 674770-51-5 CAPLUS

CN 1H-Indole-6-carboxylic acid, 3-[1,3-benzodioxol-5-yl][4-[methyl[(4-methyl-1-piperazinyl)acetyl]amino]phenyl]amino]methylene]-2,3-dihydro-2-oxo-, methyl ester, (3Z)- (9CI) (CA INDEX NAME)

Double bond geometry as described by E or Z.



L4 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2004:218460 CAPLUS

DN 140:270851

TI Preparation of heteroaryl-substituted aminomethylideneindolinones as cell proliferation inhibitors.

IN Kley, Joerg; Heckel, Armin; Roth, Gerald Juergen; Lehmann-Lintz, Thorsten; Lotz, Ralf; Hilberg, Frank; Tontsch-Grunt, Ulrike; Van Meel, Jacobus

PA Boehringer Ingelheim Pharma G.m.b.H. & Co. K.-G., Germany

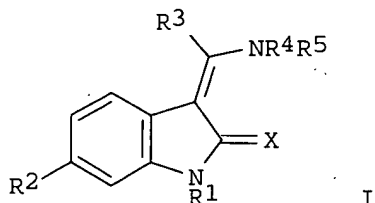
SO Ger. Offen., 114 pp.

CODEN: GWXXBX

10/489087

DT Patent  
LA German  
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 10242350	A1	20040318	DE 2002-10242350	20020912
	US 2005054710	A1	20050310	US 2003-656863	20030905
	WO 2004026829	A2	20040401	WO 2003-EP9978	20030909
	WO 2004026829	A3	20041007		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
PRAI	DE 2002-10242350	A	20020912		
	US 2002-414938P	P	20020930		
	DE 2002-10252969	A	20021114		
	US 2002-430790P	P	20021204		
OS	MARPAT 140:270851				
GI					



AB Title compds. [I; X = O, S; R1 = H, alkoxy carbonyl, alkanoyl, other prodrug residue; R2 = H, F, Cl, Br, cyano, NO2, CO2H, alkoxy carbonyl, cycloalkoxy carbonyl, etc.; R3 = (Ph-condensed) 5-6 membered heteroaryl, etc.; R4 = (imino-interrupted) (substituted) cycloalkyl; R5 = H, alkyl], were prepared 1-Acetyl-3-[1-methoxy-1-(2-dibenzylamino-4-oxazolyl)methylene]-2-indolinone and N-propionyl-N-(3-dimethylaminopropyl)-p-phenylenediamine were heated in DMF at 120° for 3 h; the cooled mixture was treated with aqueous NaOH/MeOH followed by stirring for 1 h to give 31% 3-(Z)-[1-[4-[N-propionyl-N-(3-dimethylaminopropyl)amino]phenylamino]-1-(2-dibenzylamino-4-oxazolyl)methylene]-2-indolinone. I inhibited HUVEC cell proliferation with IC50 = 0.2-120 nM.

IT **674769-84-7P**

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

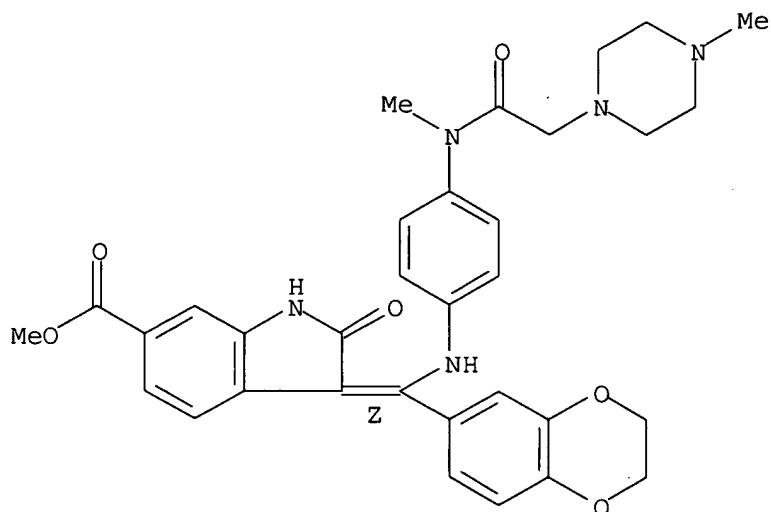
(claimed compound; preparation of heteroaryl-substituted aminomethylideneindolinones as cell proliferation inhibitors)

RN 674769-84-7 CAPLUS

CN 1H-Indole-6-carboxylic acid, 3-[(2,3-dihydro-1,4-benzodioxin-6-yl) [[4-methyl[(4-methyl-1-piperazinyl)acetyl]amino]phenyl]amino]methylene]-2,3-dihydro-2-oxo-, methyl ester, (3Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

10/489087



IT 674770-51-5P

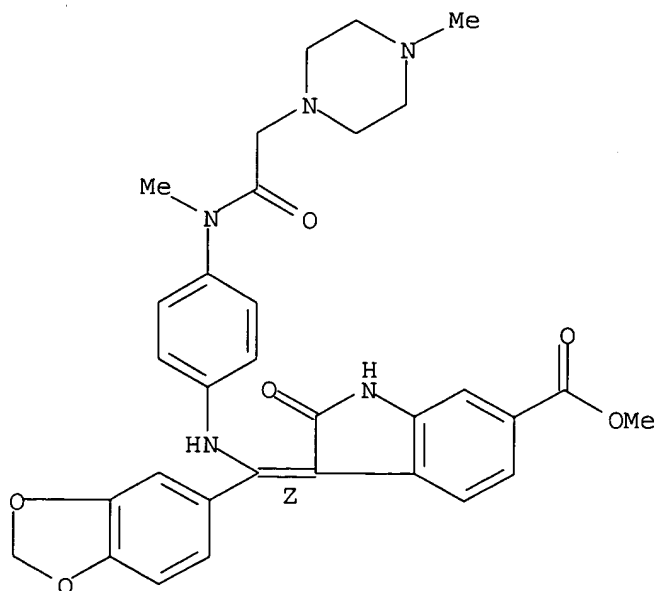
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of heteroaryl-substituted aminomethylideneindolinones as cell proliferation inhibitors)

RN 674770-51-5 CAPLUS

CN 1H-Indole-6-carboxylic acid, 3-[1,3-benzodioxol-5-yl][4-[methyl[(4-methyl-1-piperazinyl)acetyl]amino]phenyl]amino]methylene]-2,3-dihydro-2-oxo-, methyl ester, (3Z)- (9CI) (CA INDEX NAME)

Double bond geometry as described by E or Z.



L4 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2004:138723 CAPLUS

DN 140:193052

TI Use of LCK inhibitors for treatment of immunological diseases

10/489087

IN Roth, Gerald Jurgen; Heckel, Armin; Walter, Rainer; Hilberg, Frank;  
Hauptmann, Rudolf; Ernst, Steffen; Stefanic, Martin; Colbatzky, Florian  
PA Boehringer Ingelheim Pharma GmbH & Co. KG, Germany  
SO Ger. Offen., 12 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN. CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 10237423	A1	20040219	DE 2002-10237423	20020816
	WO 2004017948	A2	20040304	WO 2003-EP8890	20030811
	WO 2004017948	A3	20040422		
	WO 2004017948	C1	20050324		

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CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,  
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,  
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,  
PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN,  
TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,  
KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,  
FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,  
BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2004204458 A1 20041014 US 2003-640926 20030814

PRAI DE 2002-10237423 A 20020816

US 2002-409204P P 20020909

AB The invention discloses a method for treatment of immunol. diseases or  
pathol. conditions which contain an immunol. component, using certain LCK  
inhibitors, which already are known as kinase inhibitors for therapy in  
oncol., optionally in combination with one or more other medications  
selected from NSAIDs, steroids, DMARDs, immunosuppressants, biol. response  
modifiers, and antiinfectives. Also disclosed are pharmaceutical compns.  
which contain the LCK inhibitors as well as the other medications, and use  
of LCK inhibitors for production of a pharmaceutical composition for treatment

of

immunol. diseases or pathol. conditions which contain an immunol.  
component.

IT **656247-17-5**

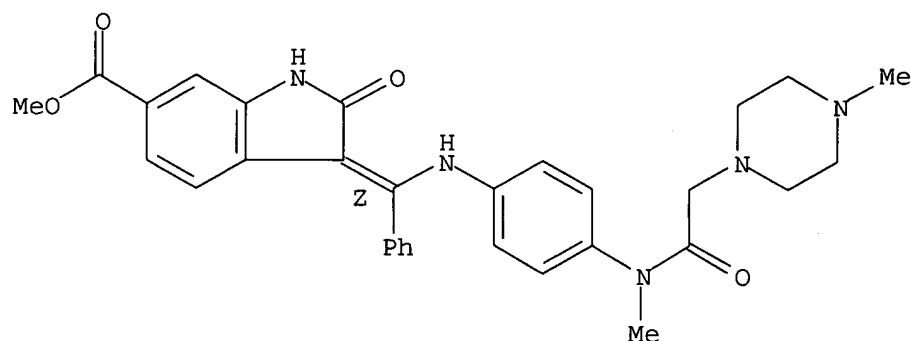
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)

(LCK inhibitors for treatment of immunol. diseases, and use with other  
agents)

RN 656247-17-5 CAPLUS

CN 1H-Indole-6-carboxylic acid, 2,3-dihydro-3-[[[4-[methyl[(4-methyl-1-  
piperazinyl)acetyl]amino]phenyl]amino]phenylmethylene]-2-oxo-, methyl  
ester, (3Z)- (9CI) (CA INDEX NAME)

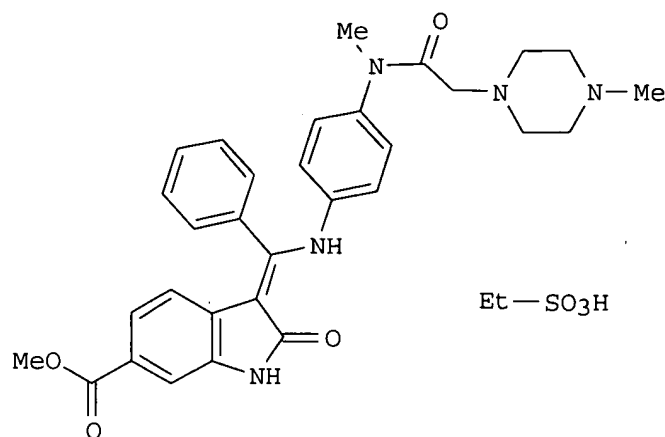
Double bond geometry as shown.



L4 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN  
 AN 2004:120826 CAPLUS  
 DN 140:163706  
 TI preparation of crystalline 3-Z-[1-(4-(N-(4-methyl-piperazin-1-yl)-methylcarbonyl)-N-methyl-amino)-anilino]-1-phenyl-methylene]-6-methoxycarbonyl-2-indolinone-monoethanesulfonate as antitumor agent  
 IN Roth, Gerald Juergen; Sieger, Peter; Linz, Guenter; Rall, Werner; Hilberg, Frank; Bock, Thomas  
 PA Boehringer Ingelheim Pharma GmbH & Co. KG, Germany  
 SO PCT Int. Appl., 24 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2004013099	A1	20040212	WO 2003-EP7822	20030718
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
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DE 10233500	A1	20040219	DE 2002-10233500	20020724
CA 2493310	AA	20040212	CA 2003-2493310	20030718
EP 1527047	A1	20050504	EP 2003-766212	20030718
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 2004176392	A1	20040909	US 2003-623971	20030721
PRAI DE 2002-10233500	A	20020724		
US 2002-404460P	P	20020819		
WO 2003-EP7822	W	20030718		

GI



AB The present invention relates to the crystal form of compound 3-Z-[1-(4-(N-((4-methyl-piperazin-1-yl)-methylcarbonyl)-N-methyl-amino)-anilino)-1-phenyl-methylene]-6-methoxycarbonyl-2-indolinone-monoethanesulfonate (I) and the use thereof as medicament having antitumor action (no data). Thus, reaction of 3-Z-1-acetyl-3-(1-ethoxy-1-phenylmethylene)-6-methoxycarbonyl-2-indolinone and N-[(4-methyl-piperazin-1-yl)-methylcarbonyl]-N-methyl-p-phenylenediamine followed by treatment of ethanesulfonic acid yielded compound I.

IT **656247-18-6P**

RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(crystal structure; preparation of 2-indolinone derivs. as antitumor agents)

RN 656247-18-6 CAPLUS

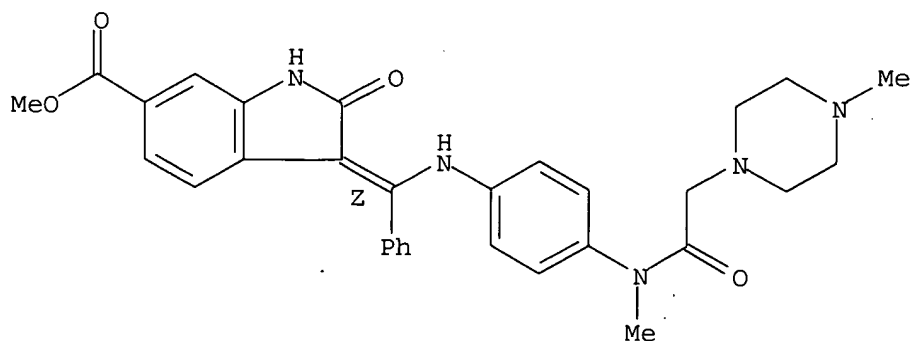
CN 1H-Indole-6-carboxylic acid, 2,3-dihydro-3-[[[4-[methyl[(4-methyl-1-piperazinyl)acetyl]amino]phenyl]amino]phenylmethylene]-2-oxo-, methyl ester, (3Z)-, monoethanesulfonate (9CI) (CA INDEX NAME)

CM 1

CRN 656247-17-5

CMF C31 H33 N5 O4

Double bond geometry as shown.

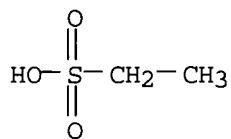


CM 2

CRN 594-45-6

10/489087

CMF C2 H6 O3 S



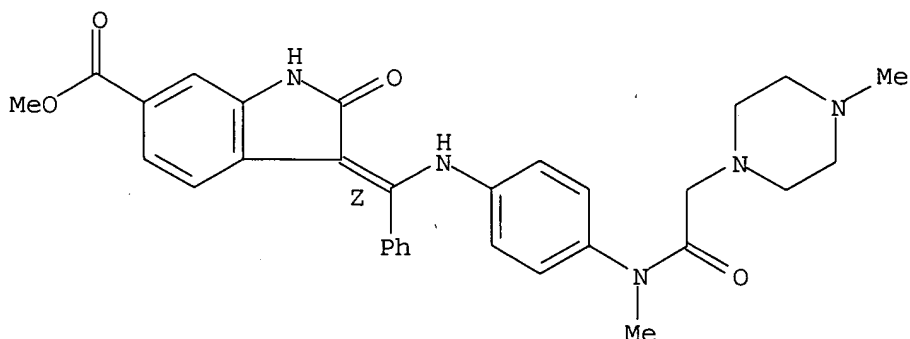
IT 656247-17-5P

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(preparation of 2-indolinone derivs. as antitumor agents)

RN 656247-17-5 CAPLUS

CN 1H-Indole-6-carboxylic acid, 2,3-dihydro-3-[[[4-[methyl[(4-methyl-1-piperazinyl)acetyl]amino]phenyl]amino]phenylmethylene]-2-oxo-, methyl ester, (3Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L4 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2001:283925 CAPLUS

DN 134:311105

TI Preparation of substituted aminomethyleneindolinone inhibitors of tyrosine receptor kinases and CDK/cyclin kinases as antitumor agents and inhibitors of cell proliferation

IN Heckel, Armin; Roth, Gerald Juergen; Walter, Rainer; Van Meel, Jacobus; Redemann, Norbert; Tontsch-Grunt, Ulrike; Spevak, Walter; Hilberg, Frank

PA Boehringer Ingelheim Pharma K.-G., Germany

SO PCT Int. Appl., 282 pp.

CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001027081	A1	20010419	WO 2000-EP9867	20001009
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,				

DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,  
CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

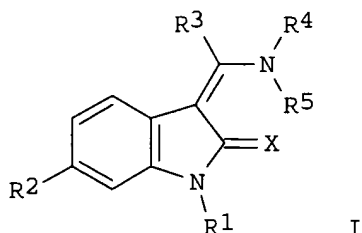
DE 19949208	A1	20010419	DE 1999-19949208	19991013
DE 10042696	A1	20020314	DE 2000-10042696	20000831
US 6762180	B1	20040713	US 2000-678682	20001003
CA 2387013	AA	20010419	CA 2000-2387013	20001009
BR 2000014735	A	20020716	BR 2000-14735	20001009
EP 1224170	A1	20020724	EP 2000-971347	20001009

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, SI, LT, LV, FI, RO, MK, CY, AL

JP 2003511441	T2	20030325	JP 2001-530102	20001009
EE 200200197	A	20030616	EE 2002-197	20001009
BG 106587	A	20030131	BG 2002-106587	20020405
ZA 2002002764	A	20040421	ZA 2002-2764	20020409
NO 2002001719	A	20020411	NO 2002-1719	20020411

PRAI DE 1999-19949208 A 19991013  
DE 2000-10042696 A 20000831  
US 1999-160547P P 19991020  
WO 2000-EP9867 W 20001009

OS MARPAT 134:311105  
GI



AB The invention relates to the preparation of substituted (Z)-aminomethyleneindolines I [wherein X = O or S; R1 = H, C1-4 alkoxy carbonyl, C2-4 alkanoyl; R2 = HO2C, C1-6 alkoxy carbonyl, C4-7 cycloalkoxy carbonyl, aryloxy carbonyl, aminocarbonyl, or alkyl-substituted aminocarbonyl; R3 = H, C1-6 alkyl, C3-7 cycloalkyl, CF3, heteroaryl, or (un)substituted Ph or naphthyl; R4 and R5 = independently C3-7 cycloalkyl, monosubstituted phenyl] isomers and salts thereof as receptor tyrosine kinase and cyclin/CDK complex inhibitors for the treatment of endothelial cells and tumor cell proliferation. For example, 1-acetyl-6-ethoxycarbonyl-3-(ethoxyphenylmethylene)-2-indolinone and N-(4-aminophenyl)-N-(3-dimethylaminopropyl)acetamide were stirred together in DMF at 100° for 3h followed by addition of piperidine to give I (X = O; R1 = H; R2 = EtO2C; R3 = EtO; R4 = (Me2NCH2CH2CH2)N(Ac)C6H4; R5 = H). I inhibited the proliferation of endothelial cells with an IC50 of 0.003 μM.

IT 334951-08-5P 334951-23-4P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

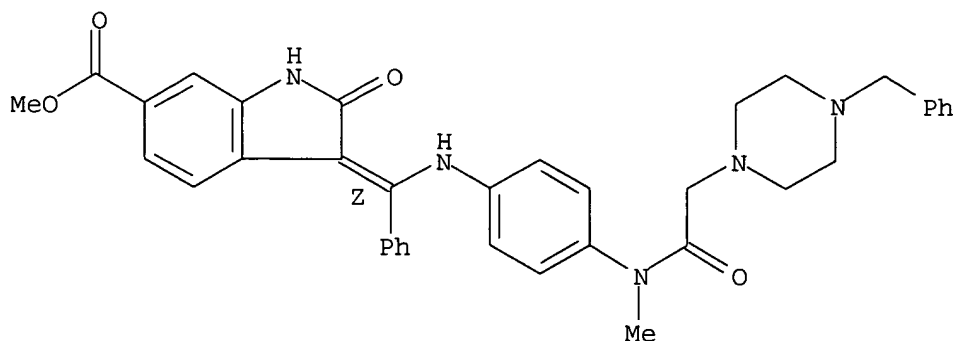
(title compds.; preparation of substituted aminomethyleneindolinone inhibitors of tyrosine receptor kinases and CDK/cyclin kinases as antitumor agents and inhibitors of cell proliferation)

RN 334951-08-5 CAPLUS

CN 1H-Indole-6-carboxylic acid, 2,3-dihydro-3-[[[4-[methyl[[4-(phenylmethyl)-1-piperazinyl]acetyl]amino]phenyl]amino]phenylmethylene]-2-oxo-, methyl ester, (3Z)- (9CI) (CA INDEX NAME)

10/489087

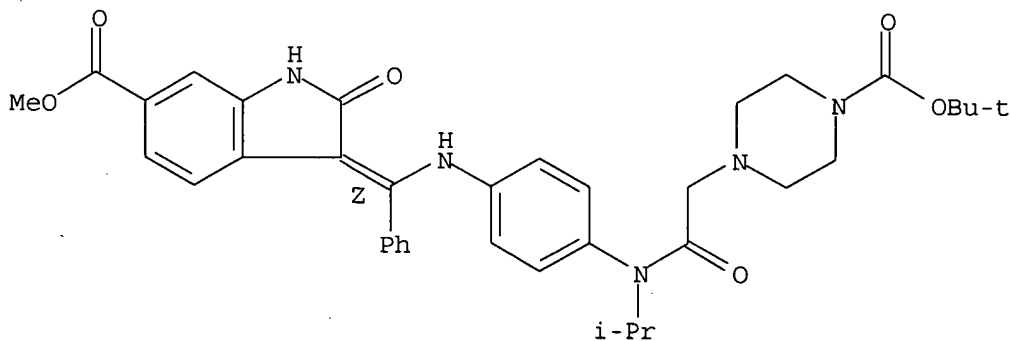
Double bond geometry as shown.



RN 334951-23-4 CAPLUS

CN 1H-Indole-6-carboxylic acid, 3-[[[4-[[[4-[(1,1-dimethylethoxy)carbonyl]-1-piperazinyl]acetyl](1-methylethyl)amino]phenyl]amino]phenylmethylene]-2,3-dihydro-2-oxo-, methyl ester, (3Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



IT 334951-54-1P 334951-61-0P

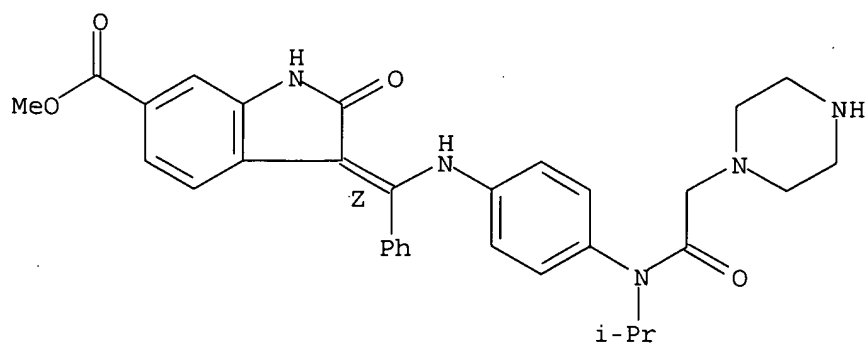
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(title compds.; preparation of substituted aminomethyleneindolinone inhibitors of tyrosine receptor kinases and CDK/cyclin kinases as antitumor agents and inhibitors of cell proliferation)

RN 334951-54-1 CAPLUS

CN 1H-Indole-6-carboxylic acid, 2,3-dihydro-3-[[[4-[(1-methylethyl)(1-piperazinyl)acetyl]amino]phenyl]amino]phenylmethylene]-2-oxo-, methyl ester, (3Z)- (9CI) (CA INDEX NAME)

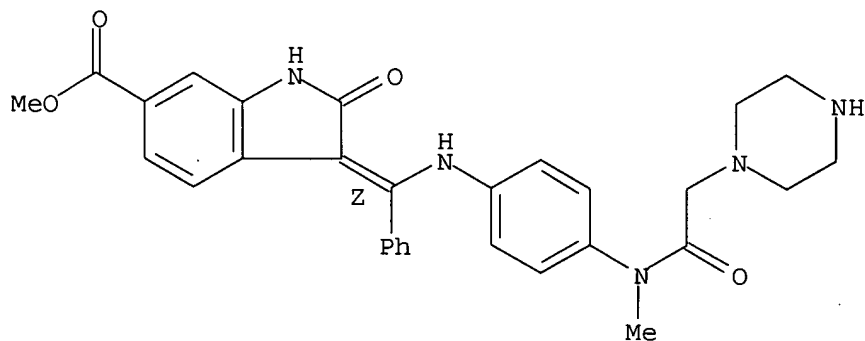
Double bond geometry as shown.

10/489087



RN 334951-61-0 CAPLUS  
CN 1H-Indole-6-carboxylic acid, 2,3-dihydro-3-[[[4-[methyl(1-piperazinylacetyl)amino]phenyl]amino]phenylmethylene]-2-oxo-, methyl ester, (3Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



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ALL CITATIONS AVAILABLE IN THE RE FORMAT

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10/489087

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